

3rd Global Summit on

ADVANCED MATERIALS FOR ENERGY APPLICATIONS (GAMSE25)

30 April-2 May | Aveiro University, Portugal



GAMSE25

<https://gamse25.materialsummit.com/>

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NanoThick

SCIENTIFIC AGENDA

DAY-1

30 APRIL, 2025

SCIENTIFIC PROGRAM

Day 1 - 30 April, 2025 - Wednesday

Time	Speaker	Affiliation	Title
08:30-09:15	Registration		
09:15-09:30	Opening Ceremony	Prof. Dr. Manuel GRAÇA	
Keynote Session			
09:30-10:15	Toshiaki Murai	Department of Chemistry and Biomolecular Science, Faculty of Engineering Gifu University, Japan	5-N-Arylaminothiazoles as New Fluorescent Small Molecules
Oral Session			
10:15-10:45	Juqin Zeng (Invited Talk)	Department of Applied Science and Technology (DISAT) Politecnico di Torino Turin, Italy	Catalyst and Process Design for Efficient Electrochemical Reduction of Carbon Dioxide
10:45-11:05	Anna-Lena Kjørniksen	Department of Engineering Østfold University College Fredrikstad, Norway	Utilization of phase change materials in self-levelling mortars
Cofee Break			
11:30-11:50	Alice Marciel	i3N and Department of Physics and CICECO and Department of Materials and Ceramic Engineering University of Aveiro Aveiro, Portugal	Advancing Electrochromic Technology for Multifunctional Flexible Devices: Deposition of Mixed Oxides Thin Films for Cutting-Edge Applications
11:50-12:10	Daniela Santos	Centre of Physics of Minho and Porto Universities (CF-UM-UP), Laboratory for materials and Emergent Technologies (LAPMET), University of Minho	Hybrid Nanofiber Systems Functionalized with Cyclodipeptides for Energy Harvesting Applications

12:10-12:30	Mosaed Saud Alhumaimess	Department of Chemistry College of Science, Jouf University, Sakaka, Saudi Arabia	Efficient Waste Cooking Oil Treatment for Large-Scale Biodiesel Production Using Mixed Metal Oxide Catalysts
Break			
Keynote Session			
13:30-14:15	N. Gogneau	Center for Nanosciences and Nanotechnologies CNRS / Paris-Sclay & Paris- City Universities Palaiseau, France	High electromechanical conversion properties of III-Nitride nanowires for piezoelectric energy harvesting: Towards the development of autonomous micro-devices
Oral Session			
14:15-14:35	Susana Devesa	University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering	Boric Acid-Free Electrodeposition Process of Ni-Carbon Black Nanocomposite Coatings for Solar-Thermal Energy Conversion
14:35-14:55	Gabriel Santos	University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering	Nickel coatings doped with WS ₂ nanoparticles on copper substrates: enhancing solar absorption
14:55-15:15	Pavel Zelenovskii	"Department of Physics and CICECO University of Aveiro Aveiro, Portugal "	Supramolecular peptide nanostructures for green energy storage and harvesting
15:15-15:35	Bárbara Costa	i3N and Physics Departments University of Aveiro Aveiro, Portugal	A comprehensive study on the synthesis conditions of Fe ₃ O ₄ Magnetic Nanoparticles
Coffee Break			
Oral Session			
16:15-16:35	Mariana Relva	University of Coimbra, Physics Department, Rua Larga, 3004-516, Coimbra, Portugal	Dielectric Potential of Green- Synthesized Hydroxyapatite Using <i>Hylocereus undatus</i> Cladode Extract
16:35-16:55	Imen Hammami	I3N and Physics Department Aveiro University Aveiro, Portugal	Response of Copper and Niobium substituted bioactive glass for bone tissue regeneration

16:55-17:15	José Rabelo Neto	i3N and Department of Physics, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal	Innovative Multifunctional Theranostic Bioceramics: Co-Doping Strategies and Potential Impact Beyond Oncology
17:15-17:35	Juliana Jesus	i3N and Department of Physics, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal	Biodistribution, Excretion and Toxicity of Nanoparticles in Magnetic Hyperthermia
17:35-17:55	Zeynab Addayeva	Nano Research Laboratory Baku State University Baku, Azerbaijan	Investigation of The Structure And Morphology of FeGaInS ₄ /PVA + GO Composites
17:55-18:15	Mou'ad. A. Tarawneh	Department of Physics, College of Science Al-Hussein Bin Talal University P.O. Box 20, Ma'an , Jordan	Graphene Oxide Nanoplate-Reinforced Thermoplastic Elastomer Nanocomposites: Next-Production Materials for High-Performance Applications
18:15-18:35	Soner GÜLER	Department of Mining Engineering Van Yuzuncu Yil University Van, Turkey	Green Concrete Solutions: The Impact of Pozzolanic Materials on Eco-Friendly Building
18:35: 18:55	Rui PAN	School of Electronic Science and Engineering Southeast University Nanji	Constructing Dual Redox Centers in Amorphous Vanadium Matrix for Flexible Aqueous Zinc-ion Battery

End of Day 1 Program

SCIENTIFIC AGENDA

DAY-2

01 MAY, 2025

SCIENTIFIC PROGRAM

Day 2 - 01 May, 2025 - Thursday

Time	Speaker	Affiliation	Title
Keynote Session			
09:30-10:15	Rodrigo Ferrão de Paiva Martins	Director of CENIMAT i3N & CEMOP/UNINOVA	Emerging Technologies for a Sustainable Electronic and Energy Action
Oral Session			
10:15-10:40	Tomasz Wejrzanowski (Invited Talk)	Faculty of Materials Science and Engineering Warsaw University of Technology Warsaw, Poland	Advances in materials for high temperature fuel cells
10:40-11:00	João Carvalho	i3N, Department of Physics University of Aveiro Aveiro, Portugal	Tuning the magnetocaloric properties of ErCrO ₃ via hydrothermal synthesis
Coffee Break			
11:20-11:40	Marta Razum	Division of Materials Chemistry Ruđer Bošković Institute Zagreb, Croatia	The effect of mixed transition metal oxides on the polaronic conductivity in vanadium phosphate glasses
11:40-12:00	Zohra Benzarti	University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering, Rua Luís Reis Santos, 3030-788 Coimbra, Portugal	Structural, morphological, optical, dielectric, and photocatalytic properties of Li-doped ZnO nanoparticles for environmental applications
12:00-12:20	Joana Regadas	i3N, Department of Physics University of Aveiro Aveiro, Portugal	Antioxidant and pro-oxidant properties of bioglass doped with Cerium and Iron
12:20-12:40	Yuksel AKINAY	Science Application and Research Center of Van Yuzuncu Yil University, Van TURKIYE	New Type 2D MXene Materials and Their Catalytic and Biomedical Applications
Lunch			

Oral Session

13:30-13:50	Ioanna Giannopoulou	National Technical University of Athens Athens, Greece	Novel sustainable and high performance catalysts for hydrogen fuel cells
13:50-14:10	FAOUZIA TAYARI	I3N-Aveiro, Department of Physics, University of Aveiro, Aveiro, 3810-193, Portugal	Sol-Gel Synthesized Perovskite Ceramics: Structural, Dielectric, Electrical, and Magnetic Properties for Energy Storage Applications
14:10-14:30	Gonçalo V. S. M. Carrera (Invited Talk)	Chemistry Department NOVA School of Science and Technology - LAQV -REQUIMTE Caparica, Portugal	The Design of Phase-Change Materials: The Concept of 2,4-Dichlorophenoxyacetic acid in the Melting Point Region
14:30-14:50	Loizos Georgiou	RTD Talos Ltd Nicosia, Cyprus	Inorganic polymers as advanced and sustainable materials for sensible heat storage
14:50-15:10	Lala Gahramanli	Nano Research Laboratory, Excellent Baku State University Baku, Azerbaijan	Optimizing Graphene Oxide/ PVA Composites for Energy Applications through Band Gap Modulation
15:10-15:30	Ahmad. A. Abushattal	Department of Physics, Al-Hussein Bin Talal University, P. O. Box 20, 71111, Ma'an, Jordan	Refractive Index Library for CubeSats and Space Missions: Material-Centric Optical Simulations for Next-Gen Solar Cells

Coffee Break

Oral Session

16:00-16:20	Olena Lavrynenko	Dept. Functional Ceramics Based on Rare Earths Frantsevich Institute for Problems of Materials Science NASU Kyiv, Ukraine	New advanced water-splitting photocatalysts based on titanium and manganese nanooxides
16:20-16:40	Filipe Amaral	Polytechnic University of Coimbra; H&TRC-Health & Technology Research Center, Coimbra Health School, Polytechnic University of Coimbra	Development of flexible composites for energy storage based on PVDF and codoped TiO2 composites
17:20-17:45	Bilal Algnamat	Department of Physics, Al-Hussein Bin Talal University, P. O. Box 20, 71111, Ma'an, Jordan	Ionic Liquids in Solar Cells: Enhancing Optical Properties for Advanced Photovoltaic Efficiency

17:45-18:10	K. Pavani	I3N and Physics Department Aveiro University Aveiro, Portugal	Non-concentration quenching phenomena in red-emitting Eu ³⁺ doped layered bismuth tungstate Aurivillius family compound
18:10-18:30	Zehra Funda AKBULUT	Department of Mining Engineering Van Yuzuncu Yil University Van, Turkey	A Comprehensive Review on the Physical, Chemical, and Biological Factors Contributing to the Deterioration of Natural Stones
18:25-18:45	Orkhan Gulahmadov	Nano Research Laboratory Baku State University Baku, Azerbaijan	Enhancing Triboelectric Nanogenerator Performance Using Nylon/Fe ₃ O ₄ Nanocomposites Under Magnetic Field Influence
18:45-19:05	Akbar Esmaeili	Department of Chemical Engineering, North Tehran Branch, Islamic Azad University, PO Box 19585/936, Tehran, Iran	Production of Drinking Water Based on the Condensation Process and Solar Panels

End of Day 2 Program



SCIENTIFIC AGENDA

DAY-3

02 MAY, 2025

SCIENTIFIC PROGRAM

Day 3 - 02 May, 2025 - Friday

Time	Speaker	Affiliation	Title
09:00-10:30 Poster Session (Best Poster and Presentations Award Ceremony)			
	Norah A. Alsaieri	Department of Chemistry Faculty of Science and Arts at Sharurah, Najran University Najran, Saudi Arabia	Sustainable Synthesis of Ag/CaO, Cu/CaO, Zn/CaO, and CaO Nanoparticles Using Marjoram Extract: Spectroscopic and Biomedical Applications
	Milena Rosić	"Vinča" Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade, Mike Petrovića Alasa 12-14, 11351 Belgrade, Serbia	Nano and fibrous Ca _{0.9} Er _{0.1} MnO ₃ perovskites - Comparison study of structural and magnetic properties
	Rana Khankishiyeva	Department of Physics and Chemistry Azerbaijan University of Architecture and Construction Baku, Azerbaijan	Sustainable Polymer Composites: Effect of Nanochitosan on LDPE Degradation and Performance
	Josefina Mariné	Materials + Technologies Group, Chemical and Environmental Engineering Department University of the Basque Country - UPV/EHU Donostia-San Sebastián, Spain.	Fabrication and characterization of thiol-containing NIPU/Polyurethane nanofiber membranes
	A. Benali	Physics department, Laboratory of Applied Physics, Faculty of Sciences of Sfax, Sfax, Tunisia	Promising multifunctional doped BiFeO ₃ nanoparticles: impact of partial multi-substitution on structural transformation
Lunch			
Delegate			
	Neha Mistry	Oxford Press	
	Matt Caffrey	290-292, Sience Park	
End of the Conference			

EXPLORING AVEIRO

Ria de Aveiro Lagoon: The city is located on a lagoon surrounded by canals. Tours can be made on this lagoon with *moliceiros*, colorful and elegant boats. These boats were traditionally used to collect seaweed.

Art Nouveau Architecture: Art Nouveau style buildings are notable in Aveiro. It is possible to see many beautiful architectural works, especially while walking in the city center.

Praia da Barra and Praia da Costa Nova: These are two beaches close to Aveiro. Costa Nova is famous for its colorful striped houses and is an ideal place for photography enthusiasts.

